

SEQUENCE LISTING



<110> Payan, Donald

<120> TOSO AS A TARGET FOR DRUG SCREENING

<130> RIGL-002CON

<140> US 09/651,150

<141> 2000-08-30

RECEIVED

<150> US 09/050,861

NOV 07 2002

<151> 1998-03-30

TECH CENTER 1600/2900

<160> 35

<170> PatentIn version 3.1

<210> 1

<211> 1911

<212> DNA

<213> Homo sapiens

<400> 1		
aaaggagtaa gcagcgtgtc tccatcccc tctctagggg ctcttgatg gaccttgcac		60
tctagaaggg acaatggact tctggcttg gccactttac ttccctgccag tatcaggggc		120

cctgaggatc ctcccagaag taaaggtaga gggggagctg ggccgatcg ttaccatcaa 180
atgcccactt cctgaaatgc atgtgaggat atatctgtgc cgggagatgg ctggatctgg 240
aacatgttgt accgtggtat ccaccacca cttcatcaag gcagaataca agggccgagt 300
tactctgaag caataccac gcaagaatct gttccttagtg gaggtAACAC agctgacaga 360
aagtgacagc ggagtctatg cctgcggagc gggcatgaac acagaccggg gaaagaccca 420
gaaagtccacc ctgaatgtcc acagtgaata cgagccatca tggaaagagc agccaatgcc 480
tgagactcca aaatggtttc atctgcccta tttgttccag atgcctgcat atgccagttc 540
ttccaaattc gtaaccagag ttaccacacc agctcaaagg ggcaagggtcc ctccagttca 600
ccactcctcc cccaccaccc aaatcaccca ccgcctcga gtgtccagag catttcagt 660
agcaggtgac aagccccgaa cttcctgcc atccactaca gcctcaaaaa tctcagctct 720
ggaggggctg ctcaagcccc agacgcccag ctacaaccac cacaccaggc tgcacaggca 780
gagagcactg gactatggct cacagtctgg gagggaaaggc caaggatttc acatcctgat 840
cccgaccatc ctgggccttt tcctgctggc acttctgggg ctgggtggta aaagggccgt 900
tgaaaggagg aaagccctct ccaggcgggc ccgcgcactg gccgtgagga tgcgcgcct 960
ggagagctcc cagaggcccc gcgggtcgcc ggcgcgcgc tccaaaaca acatctacag 1020
cgccctgccc cggcgcgctc gtggagcgga cgctgcaggc acaggggagg ccccggttcc 1080
cggccccggc gcgcgcgtgc ccccgcccc gctgcagggtg tctgaatctc cttggctcca 1140
tgccccatct ctgaagacca gctgtgaata cgtgagcctc taccaccaggc ctggcccat 1200
gatggaggac agtGattcAG atgactacat caatgttct gcctgacaac tccccagcta 1260
tcccccaacc ccaggctcgg actgtgggtgc caaggagtct catctatctg ctgtatgtcca 1320
atacctgctt catgtttct cagagccctc atcaattccc atgccccatc tcgactccca 1380
tccccatcta tctgtggccc tgagcatggc tctgccccca ggtcgcttg cacaccttgg 1440
cagccccctg tagttgacag gtaagctgta ggcgtttaga gcaattgtcc caatgccact 1500
tgcttcctt ccaagccgtc gaacagactg tgggatttgc agagtgttcc ttccatgtct 1560
ttgaccacag ggtgttggc ctgcccaggct ctagatcaca tggcatcagg ctggggcaga 1620
ggcatagcta ttgtctcggg catccttccc agggttgggt cttacacaaa tagaaggctc 1680

ttgctctgag ttatgtgacg tqcctcagcc ccatggacta agcaggggtc tggataaac 1740
actcctggaa acgccttgc cctgatccaa atgttagcac ttgctagtga acgtctactt 1800
atctcaagtt ctatgctaaa ggcaatttat cttgatgtga tgataaaacca aacttattag 1860
caagatatgc atatatatcc ataaattctc tttactctgt ctccatcctt t 1911

<210> 2

<211> 390

<212> PRT

<213> Homo sapiens

<400> 2

Met Asp Arg Trp Leu Trp Pro Leu Tyr Phe Leu Pro Val Ser Gly Ala
1 5 10 15

Leu Arg Ile Leu Pro Glu Val Lys Val Glu Gly Glu Leu Gly Gly Ser
20 25 30

Val Thr Ile Lys Cys Pro Leu Pro Glu Met His Val Arg Ile Tyr Leu
35 40 45

Cys Arg Glu Met Ala Gly Ser Gly Thr Cys Gly Thr Val Val Ser Thr
50 55 60

Thr Asn Phe Ile Lys Ala Glu Tyr Lys Gly Arg Val Thr Leu Lys Gln
65 70 75 80

Tyr Pro Arg Lys Asn Leu Phe Leu Val Glu Val Thr Gln Leu Thr Glu
85 90 95

Ser Asp Ser Gly Val Tyr Ala Cys Gly Ala Gly Met Asn Thr Asp Arg
100 105 110

Gly Lys Thr Gln Lys Val Thr Leu Asn Val His Ser Glu Tyr Glu Pro
115 120 125

Ser Trp Glu Glu Gln Pro Met Pro Glu Thr Pro Lys Trp Phe His Leu
130 135 140

Pro Tyr Leu Phe Gln Met Pro Ala Tyr Ala Ser Ser Ser Lys Phe Val
145 150 155 160

Thr Arg Val Thr Thr Pro Ala Gln Arg Gly Lys Val Pro Pro Val His
165 170 175

His Ser Ser Pro Thr Thr Gln Ile Thr His Arg Pro Arg Val Ser Arg
180 185 190

Ala Ser Ser Val Ala Gly Asp Lys Pro Arg Thr Phe Leu Pro Ser Thr
195 200 205

Thr Ala Ser Lys Ile Ser Ala Leu Glu Gly Leu Leu Lys Pro Gln Thr
210 215 220

Pro Ser Tyr Asn His His Thr Arg Leu His Arg Gln Arg Ala Leu Asp
225 230 235 240

Tyr Gly Ser Gln Ser Gly Arg Glu Gly Gln Gly Phe His Ile Leu Ile
245 250 255

Pro Thr Ile Leu Gly Leu Phe Leu Leu Ala Leu Leu Gly Leu Val Val
260 265 270

Lys Arg Ala Val Glu Arg Arg Lys Ala Leu Ser Arg Arg Ala Arg Arg
275 280 285

Leu Ala Val Arg Met Arg Ala Leu Glu Ser Ser Gln Arg Pro Arg Gly
290 295 300

Ser Pro Arg Pro Arg Ser Gln Asn Asn Ile Tyr Ser Ala Cys Pro Arg
305 310 315 320

Arg Ala Arg Gly Ala Asp Ala Ala Gly Thr Gly Glu Ala Pro Val Pro
325 330 335

Gly Pro Gly Ala Pro Leu Pro Pro Ala Pro Leu Gln Val Ser Glu Ser
340 345 350

Pro Trp Leu His Ala Pro Ser Leu Lys Thr Ser Cys Glu Tyr Val Ser
355 360 365

Leu Tyr His Gln Pro Ala Ala Met Met Glu Asp Ser Asp Ser Asp Asp
370 375 380

Tyr Ile Asn Val Pro Ala
385 390

<210> 3

<211> 73

<212> PRT

<213> Homo sapiens

<400> 3

Val Thr Ile Lys Cys Pro Leu Pro Glu Met His Val Arg Ile Tyr Leu
1 5 10 15

Cys Arg Glu Met Ala Gly Ser Gly Thr Cys Gly Thr Val Val Ser Thr
20 25 30

Thr Asn Phe Ile Lys Ala Glu Trp Lys Gly Arg Val Thr Leu Lys Gln
35 40 45

Tyr Pro Arg Lys Asn Leu Phe Leu Val Glu Val Thr Gln Leu Thr Glu
50 55 60

Ser Asp Ser Gly Val Tyr Ala Cys Gly
65 70

<210> 4

<211> 79

<212> PRT

<213> Homo sapiens

<400> 4

Leu Ser Leu Thr Cys Thr Val Ser Gly Ser Thr Phe Ser Asn Asp Tyr
1 5 10 15

Tyr Thr Trp Val Arg Gln Pro Pro Gly Arg Gly Leu Glu Trp Ile Gly
20 25 30

Tyr Val Phe Tyr His Gly Thr Ser Asp Asp Thr Thr Pro Leu Arg Ser
35 40 45

Arg Val Thr Met Leu Val Asp Thr Ser Lys Asn Gln Phe Ser Leu Arg
50 55 60

Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
65 70 75

<210> 5

<211> 73

<212> PRT

<213> Homo sapiens

<400> 5

Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Ser Asn
1 5 10 15

Tyr Ala Asn Trp Val Gln Gln Lys Pro Asp His Leu Phe Thr Gly Ile
20 25 30

Gly Gly Thr Asn Asn Arg Ala Pro Gly Val Pro Ala Arg Phe Ser Gly

35

40

45

Ser Leu Ile Gly Asn Lys Ala Ala Leu Thr Ile Thr Gly Ala Gln Thr
50 55 60

Glu Asp Glu Ala Ile Tyr Phe Cys Ala
65 70

<210> 6

<211> 72

<212> PRT

<213> Homo sapiens

<400> 6

Thr Ser Leu Asn Cys Thr Phe Ser Asp Ser Ala Ser Gln Tyr Phe Trp
1 5 10 15

Trp Tyr Arg Gln His Ser Gly Lys Ala Pro Lys Ala Leu Met Ser Ile
20 25 30

Phe Ser Asn Gly Glu Glu Gly Arg Phe Thr Ile His Leu Asn
35 40 45

Lys Ala Ser Leu His Phe Ser Leu His Ile Arg Asp Ser Gln Pro Ser
50 55 60

Asp Ser Ala Leu Tyr Leu Cys Ala
65 70

<210> 7

<211> 75

<212> PRT

<213> Homo sapiens

<400> 7

Val Thr Leu Arg Cys Lys Pro Ile Ser Gly His Asn Ser Leu Phe Trp
1 5 10 15

Tyr Arg Gln Thr Met Met Arg Gly Leu Glu Leu Leu Ile Tyr Phe Asn
20 25 30

Asn Asn Val Pro Ile Asp Asp Ser Gly Met Pro Glu Asp Arg Phe Ser
35 40 45

Ala Lys Met Pro Asn Ala Ser Phe Ser Thr Leu Lys Ile Gln Pro Ser
50 55 60

Glu Pro Arg Asp Ser Ala Val Tyr Phe Cys Ala
65 70 75

<210> 8

<211> 74

<212> PRT

<213> Homo sapiens

<400> 8

Val Glu Leu Thr Cys Thr Ala Ser Gln Lys Lys Ser Ile Gln Phe His
1 5 10 15

Trp Lys Asn Ser Asn Gln Ile Lys Ile Leu Gly Asn Gln Gly Ser Phe
20 25 30

Leu Thr Lys Gly Pro Ser Lys Leu Asn Asp Arg Ala Asp Ser Arg Arg
35 40 45

Ser Leu Trp Asp Gln Gly Asn Phe Pro Leu Ile Ile Lys Asn Leu Lys
50 55 60

Ile Glu Asp Ser Asp Thr Tyr Ile Cys Glu
65 70

<210> 9

<211> 80

<212> PRT

<213> Homo sapiens

<400> 9

Ala Lys Met Ser Cys Glu Ala Lys Thr Phe Pro Lys Gly Thr Thr Ile
1 5 10 15

Tyr Trp Leu Arg Glu Leu Gln Asp Ser Asn Lys Asn Lys His Phe Glu
20 25 30

Phe Leu Ala Ser Arg Thr Ser Thr Lys Gly Ile Lys Tyr Gly Glu Arg
35 40 45

Val Lys Lys Asn Met Thr Leu Ser Phe Asn Ser Thr Leu Pro Phe Leu
50 55 60

Lys Ile Met Asp Val Lys Pro Glu Asp Ser Gly Phe Tyr Phe Cys Ala
65 70 75 80

<210> 10

<211> 76

<212> PRT

<213> Homo sapiens

<400> 10

Val Thr Ile Thr Cys Pro Phe Thr Tyr Ala Thr Arg Gln Leu Lys Lys
1 5 10 15

Ser Phe Tyr Lys Val Glu Asp Gly Glu Leu Val Leu Ile Ile Asp Ser
20 25 30

Ser Ser Lys Glu Ala Lys Asp Pro Arg Tyr Lys Gly Arg Ile Thr Leu
35 40 45

Gln Ile Gln Ser Thr Thr Ala Lys Glu Phe Thr Val Thr Leu Lys His
50 55 60

Leu Gln Leu Asn Asp Ala Gly Gln Tyr Val Cys Gln
65 70 75

<210> 11

<211> 84

<212> PRT

<213> Homo sapiens

<220>

<221> MISC_FEATURE

<222> (6)..(51)

<223> "Xaa" at positions 6-7, 9-18, 20, 22, 25-32, 34-35, 37-48 and 50
-51 can be any amino acid.

<220>

<221> MISC_FEATURE

<222> (53)..(53)

<223> "Xaa" at position 53 can be Phe, Val, or Ile.

<220>

<221> MISC_FEATURE

<222> (54) .. (76)

<223> "Xaa" at positions 54-65, 71, and 73-76 can be any amino acid.

<220>

<221> MISC_FEATURE

<222> (79) .. (79)

<223> "Xaa" at position 79 can be either Ala or Gly.

<220>

<221> MISC_FEATURE

<222> (80) .. (82)

<223> "Xaa" at positions 80 and 82 can be any amino acid.

<400> 11

Val Thr Leu Thr Cys Xaa Xaa Ser Xaa Xaa Xaa Xaa Xaa Xaa Xaa
1 5 10 15

Xaa Xaa Phe Xaa Trp Xaa Arg Gln Xaa Xaa Xaa Xaa Xaa Xaa Xaa
20 25 30

Leu Xaa Xaa Tyr Xaa
35 40 45

Tyr Xaa Xaa Arg Xaa
50 55 60

Xaa Phe Ser Leu Thr Ile Xaa Asn Xaa Xaa Xaa Asp Ser Xaa Xaa
65 70 75 80

Tyr Xaa Cys Ala

<210> 12

<211> 43

<212> PRT

<213> Homo sapiens

<400> 12

Gln Arg Pro Arg Gly Ser Pro Arg Pro Arg Ser Gln Asn Asn Ile Tyr
1 5 10 15

Ser Ala Cys Pro Arg Arg Ala Arg Gly Ala Asp Ala Ala Gly Thr Gly
20 25 30

Glu Ala Pro Val Pro Gly Pro Gly Ala Pro Leu
35 40

<210> 13

<211> 35

<212> PRT

<213> Homo sapiens

<400> 13

Arg Arg Pro Arg Gly Glu Pro Gly Pro Arg Ala Pro Arg Pro Thr Glu
1 5 10 15

Gly Ala Thr Cys Ala Gly Pro Gly Glu Ser Trp Ser Pro Ser Pro Asn
20 25 30

Ser Met Leu
35

<210> 14

<211> 36

<212> PRT

<213> Homo sapiens

<400> 14

Met Pro Pro Arg Tyr Gly Ser Leu Arg Gln Ser Cys Pro Arg Ser Gly
1 5 10 15

Arg Glu Gln Gly Gln Asp Gly Thr Ala Gly Ala Pro Gly Leu Leu Trp
20 25 30

Met Gly Leu Val
35

<210> 15

<211> 19

<212> PRT

<213> Homo sapiens

<400> 15

Glu Ser Pro Trp Leu His Ala Pro Ser Leu Lys Thr Ser Cys Glu Tyr
1 5 10 15

Val Ser Leu

<210> 16

<211> 19

<212> PRT

<213> Homo sapiens

<400> 16

Asp Ala Pro Trp Gln Gln His Ala Arg Trp Tyr Asp Arg Cys Glu Tyr
1 . 5 . 10 . 15

Val Leu Leu

<210> 17

<211> 19

<212> PRT

<213> Homo sapiens

<400> 17

Gln Gln Pro Leu Leu His Pro Pro Glu Pro Lys Ser Pro Gly Glu Tyr
1 . 5 . 10 . 15

Val Asn Ile

<210> 18

<211> 19

<212> PRT

<213> Homo sapiens

<400> 18

Trp Glu Pro Trp Leu Pro Ala Glu Ala Leu Thr Arg Leu Arg Ile Gly
1 . 5 . 10 . 15

Gly Phe Tyr

<210> 19

<211> 19

<212> PRT

<213> Homo sapiens

<400> 19

Gln Pro Ala Ala Met Met Glu Asp Ser Asp Ser Asp Asp Tyr Ile Asn
1 5 10 15

Val Pro Ala

<210> 20

<211> 19

<212> PRT

<213> Homo sapiens

<400> 20

Thr Glu Ala Cys Val Val Arg Asp Ala Asp Asn Glu Pro His Ile Glu
1 5 10 15

Arg Pro Ala

<210> 21

<211> 19

<212> PRT

<213> Homo sapiens

<400> 21

Gln Pro Ala Pro Arg Glu Glu Glu Thr Gly Thr Glu Glu Tyr Met Lys
1 5 10 15

Met Asp Leu

<210> 22

<211> 20

<212> DNA

<213> Artificial sequence

<220>

<223> synthetic

<400> 22

gctcaacttac aggctctcta

20

<210> 23

<211> 20

<212> DNA

<213> Artificial sequence

<220>

<223> synthetic

<400> 23

caggtggggc ctttcattcc

20

<210> 24

<211> 5

<212> PRT

<213> Homo sapiens

<400> 24

Val Thr Leu Thr Cys
1 . . 5 .

<210> 25

<211> 8

<212> PRT

<213> Homo sapiens

<220>

<221> MISC_FEATURE

<222> (3) . . (3)

<223> "Xaa" at position 3 can be Gly or Ala.

<220>

<221> MISC_FEATURE

<222> (4) . . (6)

<223> "Xaa" at positions 4 and 6 can be any amino acid.

<400> 25

Asp Ser Xaa Xaa Tyr Xaa Cys Ala
1 . . . 5 .

<210> 26

<211> 5

<212> PRT

<213> Homo sapiens

<400> 26

Val Thr Ile Lys Cys
1 5

<210> 27

<211> 7

<212> PRT

<213> Homo sapiens

<400> 27

Asp Ser Gly Val Tyr Ala Cys
1 5

<210> 28

<211> 27

<212> DNA

<213> Artificial sequence

<220>

<223> primer

<400> 28

agaattctct ctaggggctc ttggatg

27

<210> 29

<211> 29

<212> DNA

<213> Artificial sequence

<220>

<223> primer

<400> 29
ataaagcttc tcagggcaca gatagatgg

29

<210> 30

<211> 22

<212> DNA

<213> Artificial sequence

<220>

<223> primer

<400> 30
agaggcatag ctattgtctc gg

22

<210> 31

<211> 20

<212> DNA

<213> Artificial sequence

<220>

<223> primer

<400> 31
acatttggat cagggcaaag

20

<210> 32

<211> 20

<212> DNA

<213> Artificial sequence

<220>

<223> primer

<400> 32

gggagaagta aagaacaaag

20

<210> 33

<211> 20

<212> DNA

<213> Artificial sequence

<220>

<223> primer

<400> 33

cgtaggcaca atcacagcat

20

<210> 34

<211> 18

<212> DNA

<213> Artificial sequence

<220>

<223> primer

<400> 34

aggggctt ggatggac

18

<210> 35

<211> 17

<212> DNA

<213> Artificial sequence

20

<220>

<223> primer

<400> 35

ctggggttgg ggatagc

17